

III. REMARKS

Claims 1-8 are pending in this application. By this amendment, claims 1 and 2 have been amended. These amendments are being made to facilitate early allowance of the presently claimed subject matter. Applicants do not acquiesce in the correctness of the rejections and reserve the right to present specific arguments regarding any rejected claims not specifically addressed. Further, Applicants reserve the right to pursue the full scope of the subject matter of the original claims in a subsequent patent application that claims priority to the instant application. Reconsideration in view of the following remarks is respectfully requested.

Entry of this Amendment is proper under 37 C.F.R. 1.116(b) because the Amendment: (a) places the application in condition for allowance as discussed below; (b) does not raise any new issues requiring further search and/or consideration; and (c) places the application in better form for appeal. Accordingly, Applicants respectfully request entry of this Amendment.

In the Office Action, claims 1-8 are rejected under 35 U.S.C. §112, second paragraph, as allegedly being indefinite. Claims 1 and 2 are rejected under 35 U.S.C. §103(a) as allegedly being anticipated by Brendel *et al.* (U.S. Patent No. 5,774,660), hereafter "Brendel," in view of Starnes *et al.* (U.S. Patent No. 6,510,469 B1), hereafter "Starnes." Claim 3 is rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Brendel in view of Starnes and further in view of Pavan (U.S. Patent No. 6,801,943 B1), hereafter "Pavan." Claim 4 is rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Brendel in view of Starnes and Pavan and further in view of Dutta *et al.* (U.S. Patent No. 6,546,423 B1), hereafter "Dutta." Claims 5-8 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Brendel in view of Starnes, Pavan, and Dutta and further in view of Colby *et al.* (U.S. Patent No. 6,625,643 B1).

A. REJECTION OF CLAIMS 1-8 UNDER 35 U.S.C. §112

The Office has asserted that claims 1-8 are indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. In response, Applicants have amended claim 1 to recite "...receiving said load balancing instructions in said NCS from said any one server." Applicants assert that this amendment further clarifies the invention. Accordingly, Applicants request that the rejection be withdrawn.

B. REJECTION OF CLAIMS 1 and 2 UNDER 35 U.S.C. §103(a)

With regard to the 35 U.S.C. §103(a) rejection of claims 1 and 2 over Brendel in view of Starnes, Applicants assert that the combined features of the references cited by the Office fail to teach or suggest each and every feature of the claimed invention. For example, with respect to independent claim 1, Applicants submit that the cited references fail to teach or suggest, *inter alia*, issuing load balancing instructions to said NCS. The Office admits that Brendel does not explicitly teach this feature. Instead, the Office cites a passage in Starnes, which teaches

When the congestion at the server component has been alleviated it sends a "Ready" message to the flow control node. This can be accomplished by calling the public method "LB Send Ready Message" or send the appropriately formatted message to the load balancer. Upon receipt of a "Ready" message the load balancer begins to transmit messages to the server component once again. Col. 14, lines 29-34.

As such, the "Ready" message of Starnes is simply a message that informs the load balancer of the status of the server. However, the "Ready" message is not an instruction in that the "Ready" message does not instruct the load balancer to do something, such as "Get Ready," but instead only informs the load balancer that the server is "Ready." Furthermore, the only message that the Starnes server sends to the load balancer is a "Ready" message and, as such, cannot be equated

with the plural instructions of the claimed invention. Nowhere, does Starnes teach or suggest issuing load balancing instructions to the load balancer. In contrast, the claimed invention includes "...issuing load balancing instructions to said NCS." Claim 1. As such, the server as included in the claimed invention does not merely send an informative message such as the "Ready" message of Starnes, but instead issues instructions to the NCS. Accordingly, the "Ready" message in Starnes is not equivalent to the load balancing instructions as included in the claimed invention. Accordingly, Applicants respectfully request that the Office withdraw its rejection.

With further respect to independent claim 1, Applicants respectfully submit that the cited references also fail to teach or suggest receiving said instructions in said NCS from said any one server; and complying with said instructions upon receipt. The Office admits that Brendel does not explicitly teach this feature. Office Action, page 3, point 6, par. 2. Instead, the Office attempts to rely on two passages of Starnes, which state, "[u]pon receipt of a "Ready" message the load balancer begins to transmit messages to the server component once again," and "[o]nce the single server component has returned a flow controlled message, the load balancer responds to send methods with a 'Server Component not Ready' return code. Col. 14, lines 34-36, 50-53. Thus, the load balancer in Starnes performs actions based on information it receives from the server, for example, a "Ready" message. However, the informational "Ready" message of Starnes cannot be said to have been complied with by the load balancer as Starnes does not teach that the load balancer will "Ready" itself or perform a "Ready" operation on something else. Therefore, the load balancer in Starnes cannot be said to complying with an instruction received from the server. The claimed invention, in contrast, includes "...receiving said instructions in

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said NCS from said any one server; and complying with said instructions upon receipt.” Claim

1. As such, the NCS of the claimed invention does not merely perform some function upon receipt of an informational message as does the load balancer in Starnes, but instead complies with instructions received from any one server upon receipt. As such, the complying with the instructions as included in the claimed invention are not taught or suggested by the performance of an action upon receipt of an informational message in Brendel. Accordingly, Applicants request that the rejection be withdrawn.

With respect to claim 2, Applicants respectfully submit that the cited references also fail to teach or suggest that the step of issuing instructions includes the step of: passing said instructions to said NCS in a NCS-control HTTP header, said passing step further including the steps of: including directives that must be obeyed by said NCS. Instead, as argued above, Starnes teaches that its server sends a “Ready” message to the load balancer. However, this “Ready” message of Starnes is not a directive to the NCS but merely informational status messages. Furthermore, the load balancer of Starnes acts independently to “...distribute the processing load for producing the accelerated version of the images amongst the available accelerators.” Col. 8, lines 50-53. Nowhere does Starnes teach or suggest that its load balancer of Starnes must obey the “Ready” message. In contrast, the claimed invention includes “...the step of issuing instructions includes the step of: passing said instructions to said NCS in a NCS-control HTTP header, said passing step further including the steps of: including directives that must be obeyed by said NCS.” Claim 2. As such, the directives of the claimed invention are not merely informational messages as is the “Ready” message of Starnes, but are instead directives that must be obeyed by the NCS. Furthermore, unlike the load balancer in Starnes the NCS of the claimed

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invention must obey the directives included in the instructions. Thus, the "Ready" message of Starnes does not teach or suggest the directives that must be obeyed by said NCS as included in the claimed invention. Accordingly, Applicants respectfully request withdrawal of the rejection.

With further respect to claim 2, Applicants respectfully submit that the cited references also fail to teach or suggest that the step of issuing instructions includes the step of: passing said instructions to said NCS in a NCS-control HTTP header, said passing step further including the steps of: optionally including a filter to limit a scope of application of said directives. The Office admits that Brendel in view of Starnes does not include the step of optionally including a filter. Office Action, page 4, par. 3. Instead, the Office asserts that it would have been obvious to a person of ordinary skill in the art at the time the invention was made to optionally include the filter. However, Applicants assert that the Office's factual assertion is not properly based upon common knowledge. Instead, Applicants assert that passing said instructions to said NCS in a NCS-control HTTP header, said passing step further including the steps of: optionally including a filter to limit a scope of application of said directives is not obvious to one skilled in the art as asserted by the Office. Accordingly, Applicants respectfully request that the Office withdraw the rejection or support the finding with references that show these features.

With further regard to the 35 U.S.C. §103(a) rejection of claims 1 and 2 over Brendel in view of Starnes, Applicants assert that there is no motivation or suggestion to combine the Brendel and Starnes references. Specifically, Starnes teaches that its server sends its load balancer a "Ready" message. Col. 14, lines 39-31. In contrast, Brendel teaches,

Outgoing packets do not go through load-balancer 54. The bandwidth of traffic through load balancer 54 is much less than through router 32 of FIG. 4 since only the relatively small incoming requests are routed through load balancer 54 while outgoing data bypasses load balancer 54. Col. 9, lines 60-64.

As such, the teaching Brendel that outgoing packets do not go through the load balancer teaches away from the sending of the "Ready" message to the load balancer of Starnes. Accordingly, Applicants submit that the Office has failed to prove a *prima facie case* of obviousness. As such, Applicants request that the Office's rejection be withdrawn.

With regard to the Office's other arguments regarding dependent claims, Applicants herein incorporate the arguments presented above with respect to the independent claims from which the claims depend. Furthermore, Applicants submit that all dependant claims are allowable based on their own distinct features. Since the cited art does not teach each and every feature of the claimed invention, Applicants respectfully request withdrawal of this rejection.

C. REJECTION OF CLAIMS 3-8 UNDER 35 U.S.C. §103(a)

With regard to the 35 U.S.C. §103(a) rejection over Brendel in view of Starnes, Pavan, Dutta and Colby, Applicants assert that there is no motivation or suggestion to combine Brendel and Starnes with Pavan. Specifically, Brendel deals with load-balancing in a client-server environment to balance the load on a number of servers. Starnes uses a load balancer in conjunction with an apparatus for providing accelerated content delivery over a network. In contrast, Pavan deals with scheduling real time applications in a network environment "for the purpose of achieving correct deadline and priority based scheduling of network packets." Col. 2, lines 19-26. Accordingly, there is no intrinsic motivation or suggestion in any of the references or extrinsic motivation or suggestion to use the type of temporal scheduling aspects of Pavan with the structural load-balancing of Brendel and Starnes. Accordingly, Applicants respectfully

submit that the Office has failed to prove a *prima facie* case of obviousness and respectfully request that the Office's rejection be withdrawn.

With regard to the 35 U.S.C. §103(a) rejection of claim 4 over Brendel in view of Starnes, Pavan, and Dutta, Applicants assert that the cited references fail to teach or suggest an increase-rate directive; a decrease-rate directive; an increase-window directive; and a decrease-window directive. The Office admits that neither Brendel, Starnes nor Pavan disclose this feature. Instead, the Office cites a passage in Dutta in which "Server A...sends a message to the firewall to either generally reduce the amount of traffic being directed to Server A, or else specifically to redirect the traffic being sent in accordance with load balancing rule X to another server." Col. 5, lines 10-30. The Office attempts to equate the traffic redirection of Dutta with the decrease window directive of the claimed invention. Office Action, page 6, par. 2. However, the decrease window directive of the claimed invention does not merely send a message to the load balancer to redirect traffic from the sending server to another, but instead decreases the number of jobs allowed to be simultaneously processed in said any one server. Furthermore, Applicants respectfully submit that, contrary to the Office's assertion, it is not obvious to include an increase-rate directive, decrease-rate directive, and an increase-window directive. Accordingly, Applicants request that the Office provide references that support its finding. In any case, nowhere does Dutta teach or suggest an increase-rate directive, a decrease rate directive, an increase window directive and a decrease window directive. In contrast, the claimed invention includes, "...an increase-rate directive to require said NCS to increase a rate at which requests to said any one server are sent; a decrease-rate directive to require said NCS to decrease a rate at which requests to said any one server are sent; an increase-window directive to

require said NCS to increase a number of jobs allowed to be simultaneously processed in said any one server; and a decrease-window directive to require said NCS to decrease a number of jobs allowed to be simultancously processed in said any one server.” Claim 4. As such, the directives as included in the claimed invention do not merely send a message to a firewall to generally reduce the amount of traffic being sent to the server or else redirect the traffic to another server as in Dutta, but instead perform the specific functions claimed above. For the above stated reasons, the directives of the claimed invention are not taught or suggested by the message sent by Dutta. Accordingly, Applicants respectfully request that the Office withdraw its rejection.

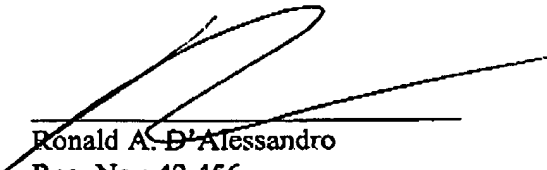
With regard to the Office's other arguments regarding dependent claims, Applicants herein incorporate the arguments presented above with respect to independent claims listed above. In addition, Applicants submit that all dependant claims are allowable based on their own distinct features. However, for brevity, Applicants will forego addressing each of these rejections individually, but reserves the right to do so should it become necessary. Accordingly, Applicants respectfully request that the Office withdraw its rejection.

IV. CONCLUSION

In light of the above, Applicants respectfully submit that all claims are in condition for allowance. Should the Examiner require anything further to place the application in better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the number listed below.

Respectfully submitted,

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